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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

BATES, KEVIN T

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/657,568	Applicant(s) GBADEGESIN ET AL.	
	Examiner KEVIN BATES	Art Unit 2456	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 87-90 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 7, 9-12, 14-20 and 87-90 is/are rejected.
- 7) ☐ Claim(s) 5, 8 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1-22-09</u> . | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

This Office Action is in response to a communication made on January 22, 2009.

The Information Disclosure Statements filed January 22, 2009 has been considered.

Claims 21-86 have been cancelled.

Claims 1-3, 7-12, 17, 19-20, and 87-90 have been amended.

Claims 1-20 and 87-90 are pending in this application.

Request for Interview

The examiner believes an interview would help expedite prosecution in this case in encourages the applicant to call the examiner at the below listed phone number.

Response to Arguments

Applicant's arguments with respect to claims 1-20 and 87-90 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 6-7, 9-12, 14-20, and 87-90 are rejected under 35 U.S.C. 102(e) as being anticipated by Mahler (6542504).

Regarding claims 1 and 11, Mahler teaches one or more processor-accessible storage media comprising processor-executable instructions that, when executed, direct a device to perform actions comprising:

accepting a connection from a connecting device at a forwarder (Col. 13, lines 36 – 56);

receiving data at the forwarder from the connecting device as a result of accepting the connection (Col. 15, line 12 - Col. 16, line 29);

forwarding the data from the forwarder to a classifier (Col. 13, lines 36 - 56);

determining, by the classifier, a second device for receiving the connection (Col. 13, lines 36 - 56);

aggregating a connection state for the connection at the classifier by aggregating a protocol state of a first protocol stack at the second device by sending the binary blob (Col. 23, line 47 – Col. 24, line 27);

sending the connection state from the classifier to the second device for injection into a second protocol stack at the second device by sending the binary blob including the protocol state and the data to the second device whereby the connection is transferred to the second device (Col. 23, line 47 – Col. 24, line 27);

in conjunction with sending the connection state, adding an entry to a mapping table maintained by the forwarder that indicated the second device as a destination for packets for the connection (Col. 17, lines 14 - 29);

sending a mapping for a flow identifier to the second device based upon the entry in the mapping table (Col. 17, lines 14 - 29);

receiving subsequent communications from the connecting device by the forwarder (Col. 12, lines 40 – 45);

encapsulating the subsequent communications by the forwarder according to the entry in the mapping table of the forwarder by inserting the flow identifier into the encapsulated communications (Col. 12, lines 40 – 45); and

receiving the encapsulated communications at the second device from the forwarder, wherein the flow identifier serves to identify a flow of encapsulated communications as being associated with the connection to the connecting device (Col. 14, lines 10 – 36).

Regarding claim 2, Mahler teaches the one or more processor-accessible storage media as recited in claim 1, further comprising, prior to the aggregating,

determining, by the classifier, second device to receive migration of the connection state from among a plurality of second devices (Col. 13, lines 36 - 56); and

passing a migrate connection function call to a topmost layer of the first protocol stack to initiate the aggregating of the connection state for migrating the connection state to the determined second device (Col. 23, line 47 – Col. 24, line 27).

Regarding claim 3, Mahler teaches the one or more processor-accessible storage media as recited in claim 1, wherein sending the binary blob asynchronously to a connection migratory component at a second device wherein the connection migrator is configured to receive the binary blob as a bundle, reassemble the connection state from the binary blob, and infuse the connection state into the second protocol stack at the second device (Col. 23, line 47 – Col. 24, line 27).

Regarding claim 4, Mahler teaches the one or more processor-accessible storage media as recited in claim 1, wherein the action of aggregating comprises an action of: compiling a protocol state from the protocol stack, wherein the compiled protocol state includes destination and source ports and IP addresses (Col. 23, line 47 – Col. 24, line 27, see Table 3).

Regarding claim 6, Mahler teaches the one or more processor-accessible storage media as recited in claim 4, wherein the action of compiling comprises an action of: compiling the protocol state from the first protocol stack at a transmission control protocol (TCP) stack portion and an internet protocol (IP) stack portion (Col. 2, lines 9 – 15).

Regarding claims 7 and 17, Mahler teaches the one or more processor-accessible storage media as recited in claims 1 and 11, wherein the action of sending comprises actions of:

bundling the connection state with mapping for flow identifier that corresponds to the connection to produce the binary blob (Col. 17, lines 14 - 29); and

transmitting the binary blob having the flow identifier mapping bundled I therein from the to the second device (Col. 23, line 47 – Col. 24, line 27).

Regarding claim 9, Mahler teaches the one or more processor-accessible storage media as recited in claim 1, wherein the processor-executable instructions that, when executed, direct the device to perform further actions comprising: selecting a flow identifier for the connection responsive to a connection counter; and sending the flow identifier to identify packets corresponding to the connection (Col. 17, lines 14 - 29).

Regarding claims 10 and 19, Mahler teaches the one or more processor-accessible storage media as recited in claims 11, wherein the processor-executable instructions, when executed, direct the forwarder to perform a further action comprising: forwarding subsequent communications for the connection to the second device using the flow identifier to encapsulate the subsequent communications, said encapsulated subsequent communications including the flow identifier in source and destination port fields of a header (Table 3; Col. 2, lines 9 – 15, wherein the packets are TCP packets, then formatted into IP/UDP/RTP packets and compressed).

Regarding claim 12, Mahler teaches the one or more processor-accessible storage media as recited in claim 11, wherein the action of continuing comprises an action of: continuing the connection by forwarding received packets received by the forwarder to the second device, wherein the second device includes a migratory intermediate driver for buffering packets received prior to the injected aggregated connection state becoming active on the second device (Col. 13, lines 52 – 67).

Regarding claim 14, Mahler teaches the one or more processor-accessible storage media as recited in claim 11, wherein the action of injecting the connection state further comprises an action of: indicating the data for the connection up the network stack toward an application (Col. 23, line 47 – Col. 24, line 27).

Regarding claim 15, Mahler teaches the one or more processor-accessible storage media as recited in claim 11, wherein the action of injecting comprises an action of: infusing a protocol state from the connection state into a protocol stack portion of the network stack Col. 23, line 47 – Col. 24, line 27).

Regarding claim 16, Mahler teaches the one or more processor-accessible storage media as recited in claim 15, wherein the action of infusing comprises an action of: infusing the protocol state into the protocol stack starting at a highest level of the protocol stack (Col. 23, line 47 – Col. 24, line 27).

Regarding claim 18, Mahler in combination with Krause teaches the one or more processor-accessible storage media as recited in claim 11, unbundling the connection state and the data at a level of the network stack that is below a protocol stack portion of the network stack (Col. 23, line 47 – Col. 24, line 27).

Regarding claim 20, Mahler teaches the one or more processor-accessible storage media as recited in claim 11, wherein the processor-executable instructions, when executed, direct the device to perform a further action comprising: receiving from the originating device encapsulated packets that have a flow identifier; and de-encapsulating the encapsulated packets using an encapsulation mapping entry that links the flow identifier to a source/destination pair (Table 3; Col. 2, lines 9 – 15, wherein

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the packets are TCP packets, then formatted into IP/UDP/RTP packets and compressed).

Regarding claims 87-90, these claims contain the same or similar limitations as found in claims 11-12, and 14-20 and are rejected under the same rationale.

Allowable Subject Matter

Claims 5, 8, and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN BATES whose telephone number is (571) 272-3980. The examiner can normally be reached on 9 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on (571) 272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin Bates/
Primary Examiner, Art Unit 2456